

Claims

1. Carrier platform, comprising:

a molded body (1), which contains a fiber-composite material with a portion of reinforcing glass fibers,

5 wherein a busbar (11a, 11b, 11c) is arranged in the molded body (1),

wherein each busbar can be contacted by means of contact elements allocated to it.

2. Carrier platform according to Claim 1, wherein the busbar (11a, 11b, 11c) is at least partially embedded in the molded body (1).

10

3. Carrier platform according to Claim 1, wherein a contact element is a component of a busbar (11a, 11b, 11c).

4. Carrier platform according to Claim 3, wherein a busbar (11a, 11b, 11c) is embedded with a positive fit in the molded body (1).

15

5. Carrier platform according to one of the preceding claims, in which the relative difference in coefficients of thermal expansion of the molded body and busbar does not exceed 30%.

20

TRANSLATION

Attorney Docket No. 14219-122US1  
Client Ref.: P2004,0225USN  
U.S. Application No. 10/593,058  
PCT Appln No. PCT/DE2005/0000323

6. Carrier platform according to Claim 5, wherein a contact element (12, 12') is upright relative to the busbar.

5 7. Carrier platform according to Claim 6, wherein a contact element (12, 12') is embedded in the molded body (1) with a form fit.

8. Carrier platform according to one of Claims 1 to 7, wherein a contact area of a busbar (11a, 11b, 11c) is formed as an external terminal.

10 9. Carrier platform according to one of Claims 1 to 8, wherein at least one contact element is formed as an internal terminal for connecting an electrical component.

10. Carrier platform according to one of Claims 1 to 9, wherein the molded body (1) is connected to a hood (2, 3) for forming a housing.

15 11. Carrier platform according to Claim 10, with electrical components, wherein at least one part of the electrical components is attached to the hood (2).

20 12. Carrier platform according to one of Claims 1 to 11, wherein busbars (11a, 11b, 11c) are encased in fiber-composite material or molded by the fiber-composite material.

13. Carrier platform according to one of Claims 1 to 12, wherein the contact elements (12, 12') are at least partially encased in the fiber-composite material or molded by the fiber-composite material.

5           14. Carrier platform according to one of Claims 1 to 13, wherein the molded body (1) has two parts connected mechanically fixed to each other, wherein recesses facing inwards are formed in at least one of the parts for receiving the busbars (11a, 11b, 11c), wherein the two parts of the carrier platform are connected mechanically fixed to the busbars.

10           15. Carrier platform according to one of Claims 1 to 14, wherein at least one busbar is formed as a phase busbar (41, 42, 43), which has external terminals (51, 52, 53, 61, 62, 63) for connecting to a power network with at least one current phase, wherein the number of phase busbars (41, 42, 43) corresponds to the number of current phases.

15           16. Module for connection to a network of at least one-phase power mains with a housing, which has a carrier platform according to one of Claims 1 to 15 and at least one hood (2, 3) connected rigidly to the molded body (1), containing a functional unit, which contains at least one capacitor (C) per current phase.

20           17. Module according to Claim 16, with a first module area, which is formed between the molded body (1) and a first hood (2), with a second module area, which is formed between

**TRANSLATION**

Attorney Docket No. 14219-122US1  
Client Ref.: P2004,0225USN  
U.S. Application No. 10/593,058  
PCT Appln No. PCT/DE2005/0000323

the molded body (1) and a second hood (3), wherein a first functional group containing at least capacitors is arranged in the first module area, wherein a second functional group containing at least safety devices (15) is arranged in the second module area.

5           18. Module according to one of Claims 16 to 17, in which inductors (L) are provided as additional components.

          19. Module according to one of Claims 16 to 18, in which the first or second functional group includes at least one switching device (16).

10

          20. Module according to one of Claims 16 to 19, which includes at least one sensor for detecting a physical parameter, wherein the sensor is arranged in the first module area.

15

          21. Module according to Claim 16, in which the sensor is a temperature sensor (81) or an overpressure sensor (82).

          22. Module according to one of Claims 16 to 21, in which discharge resistors (R) or discharge inductors (L'), which are each connected in parallel to a capacitor, are provided as additional components.

20

23. Module according to one of Claims 16 to 22, in which the coefficient of thermal expansion of a busbar differs at most by 4% from that of the molded body (1).

24. Module according to one of Claims 16 to 23, which includes compact LC elements  
5 (W1, W2, W3) containing at least one LC coil.

25. Module according to Claim 24, in which at least one LC element (W1, W2, W3) has two electrically interconnected LC sub-coils (W1a, W1b), wherein this LC element (W1, W2, W3) has a magnetic annular core, wherein the LC sub-coils (W1a; W1b) have metal films (B1, B1'; B2, B2'), which are wound around different legs of the annular core.  
10

26. Module according to Claim 25, wherein the annular core is formed as a UU core, wherein the UU core includes two U cores (91, 91'), which face each other with end faces (91a, 91a') of their legs.  
15

27. Module according to Claim 26, wherein an insert (98) made from a magnetic material is arranged between the two U cores (91, 91').

28. Module according to one of Claims 25 to 27, in which the LC coil is connected to a  
20 load capacitor.

29. Carrier platform, comprising:

a molded body (1), which is composed of a fiber composite material containing a portion of reinforcing glass fibers,

wherein busbars (11a, 11b, 11c) are arranged in the molded body (1),

5 wherein each busbar can be contacted by means of contact elements allocated to it,

wherein the contact elements each have an open contact area,

wherein at least one of the busbars (11a, 11b, 11c) is integrated in the molded body (1) at least partially with a form fit.

10 30. Power factor correction device, in which unhoused electrical components are arranged on a carrier and in which a common housing enclosing several unhoused components is provided.

15 31. Safety device for a capacitor, in which a temperature switch is arranged in the interior of the wound central column of the capacitor.

32. Device for power factor correction, in which a thyristor is provided in series to one or more capacitors for connecting the capacitors to a power network.

20 33. Device for power factor correction, in which several identical phase shifter modules are connected in series one after the other.

**TRANSLATION**

Attorney Docket No. 14219-122US1  
Client Ref.: P2004,0225USN  
U.S. Application No. 10/593,058  
PCT Appln No. PCT/DE2005/0000323

34. Power factor correction device, in which electrical components are interconnected without wires.

5            35. Device for power factor correction, which can process a reactive power  $> 20$  kvar, whose weight is  $< 50$  kg and whose volume equals  $< 100$  L.